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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,842	11/29/2001	Kosta L. Pelonis	305-01	6401
7590 04/14/2004				
Paul & Paul 2900 Two Thousand Market Street Philadelphia, PA 19103		EXAMINER JEFFERY, JOHN A		
		ART UNIT PAPER NUMBER		
		3742		

DATE MAILED: 04/14/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/996,842

**Applicant(s)**

PELONIS, KOSTA L.

**Examiner**

John A. Jeffery

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Prosecution Reopened***

In view of the appeal brief filed on 2/9/04, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (a) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (b) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Statutory Text in Previous Office Action***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

### ***Claim Rejections - 35 USC § 103***

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over De'Longhi (US4870253) in view of Woolley (US2075323). De'Longhi (US4870253) discloses a portable, sealed electrically-heated radiator containing a diathermal fluid within tubular radiator units. The diathermal fluid is heated by an electric heater 4

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positioned within the sealed radiator. See Figs. 1 and 2. A centrifugal fan 6 (col. 4, line 22) mounted adjacent the tubular units enhances thermal convection.

The claims differ from De'Longhi in calling for the fan to be positioned above the sealed radiator to enhance thermal convection of the diathermal fluid within the tubular radiator units. Woolley (US2075323) discloses a covered, sealed radiator heater comprising a plurality of tubular radiator units and fans 18 positioned above the radiator units for directing air onto the radiator units' upper portions enhancing thermal convection. See Fig. 1 and P. 1, col. 2, lines 27-42. According to P. 1, lines 24-35 of Woolley, "air is projected downwardly over the heat transferring surfaces of the radiator and is discharged at a predetermined point near the floor of the room...thereby positively heating a maximum volume of the room air, and also most effectively distributing heat uniformly throughout the room." In view of Woolley, it would have been obvious to one of ordinary skill in the art to provide the fan above the tubular radiator units in De'Longhi to air is project air downwardly over the heat transferring surfaces of the radiator and discharge air at a predetermined point near the floor of the room thus positively heating a maximum volume of room air, and more uniformly distributing heat throughout the room.

Regarding the limitation calling for enhancing thermal convection of the diathermal fluid, mounting a fan above the tubular radiation units in De'Longhi -- such that the fan blows air directly on, and downwardly over, the tubular units -- would inherently influence the temperature of the diathermal fluid contained therein.

Therefore, such a fan mounting with respect to the tubular units in De'Longhi would inherently enhance thermal convection of the fluid.

The claims also differ from the previously cited prior art in calling for the electric motor driving the fan at low rpm. However, as is well known in the art, the speed of the fan in heat radiators is directly proportional to the convective heating effect. That is, driving a fan at higher speed will result in a greater convective heating effect as compared to lower speeds. For example, Woolley (US2075323) on Page 2, lines 19-28 discloses driving a fan in conjunction with a radiator for heating a room at reduced speed (note "half or other partial speed in lines 26-27) depending on the desired temperature setting. In view of Woolley (US2075323), it would have been obvious to one of ordinary skill in the art to provide a reduced fan speed setting in the previously described apparatus so that a reduced convective heating effect was achieved thereby avoiding overheating of the space to be heated.

Regarding claims 5 and 6, no criticality is seen in the specific motor rpm values. Furthermore, it is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955). Moreover, courts have held that even if "applicant's modification results in great improvement and utility over the prior art, it may still not be patentable if the modification was within the capabilities of one skilled in the art, unless the claimed ranges 'produce a new and unexpected result from which is different in kind and not merely in degree from the results of the prior art.'" *In re Huang*, 100 F.3d 135, 139 (Fed. Cir. 1996); 40

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U.S.P.Q. 2d 1685 (*citations omitted*). Here, one of ordinary skill in the art would know that reducing the motor speed would correspondingly reduce the airflow rate of the fan (see e.g., P. 2, col. 2, lines 19-29 of Woolley) and the specific rpm values claimed are within the scope of routine experimentation by one of ordinary skill in the art.

### ***Response to Arguments***

Applicant's arguments have been considered but are deemed to be moot in view of the new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (703) 306-4601. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

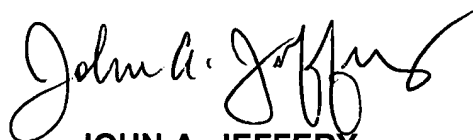
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Pothier, can be reached on (703) 308-0993. All faxes should be sent to the centralized fax number at (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

A handwritten signature in black ink, appearing to read "John A. Jeffery". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**JOHN A. JEFFERY**  
**PRIMARY EXAMINER**

**4/12/04**